

FLUORESCENT LAMP ELECTRODE FOR INSTANT START CIRCUITS

ABSTRACT OF DISCLOSURE

A fluorescent lamp (10) with improved life is formed by winding a coil (30) using first, second, and third mandrels (45, 46, 50), the third mandrel having a diameter of at least 1.0 mm. The coil is wound around the second mandrel to provide at least 80 turns per inch (TPI). The third mandrel is larger than in conventional coils, allowing about 50% more emitter material (32) than can be loaded on a conventional coil. This has been found to lead to substantially increased lamp life, about 50% longer for a diameter of 1.25mm than for a coil with diameter of about 0.86mm. Increasing the TPI of the second coil over that of a coil having a TPI of 60-70 also increases the lamp life by providing better retention of the emitter material. By combining both the increased third diameter with increased second coil TPI, lifetimes of about twice that of a corresponding conventional coil may be achieved.